

## **LISTING OF THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An isolated type II restriction endonuclease recognizing only a particular nucleotide sequence of DNA ~~and which cleaves the DNA~~, wherein the enzyme comprises the amino acid sequence of SEQ ID NO: 3, and wherein the type II restriction endonuclease recognizes ~~and cuts DNA~~ only at the said particular sequence of nucleotides for initiating cutting of DNA.
2. (Previously Presented) The isolated type II restriction endonuclease according to claim 1, wherein the DNA is from a bioorganism.
3. (Previously Presented) The isolated type II restriction endonuclease according to claim 1, wherein the DNA is manually synthesized.
4. (Previously Presented) The isolated type II restriction endonuclease according to claim 1, wherein the particular nucleotide sequence comprises the sequence 5'-CCATC-3' as shown by SEQ ID NO: 1.
5. (Currently Amended) The isolated type II restriction endonuclease according to claim 4, wherein the type II restriction endonuclease cleaves the DNA between the fourth and fifth bases 3' of said particular nucleotide sequence and, in the complementary strand, between the fifth and sixth bases 5' of the complement of said particular nucleotide sequence ~~four and five bases downstream from the particular nucleotide sequence in the top and bottom strands, respectively, of SEQ ID NO: 1.~~
6. (Previously Presented) The isolated type II restriction endonuclease according to claim 1, wherein the type II restriction endonuclease is an enzyme derived from a microorganism.

7. (Previously Presented) The isolated type II restriction endonuclease according to claim 6, wherein the microorganism is *Helicobacter pylori*.

8. (Original) An isolated nucleic acid encoding a type II restriction endonuclease according to claim 1.

9. (Previously Presented) The isolated nucleic acid according to claim 8, wherein the nucleic acid sequence has the sequence of SEQ ID NO: 2.

10. (Original) The isolated nucleic acid according to claim 9, wherein the nucleic acid is originated from *Helicobacter pylori*.

11. (Original) A vector comprising the nucleic acid according to claim 8.

12. (Previously Presented) A transformed cell comprising a vector according to claim 11.

13. (Currently Amended) An isolated recombinant enzyme that specifically recognizes DNA at a particular nucleotide sequence and which cleaves the DNA between the fourth and fifth bases 3' of said particular nucleotide sequence and, in the complementary strand, between the fifth and sixth bases 5' of the complement of said particular nucleotide sequence, ~~four and five bases downstream from the particular nucleotide sequence in the top and the bottom strand, respectively, downstream of the particular DNA sequence at the fourth base in the top strand and the fifth base in the bottom strand~~, and the recombinant enzyme comprising the amino acid sequence of SEQ ID NO: 3.